

## INTERNATIONAL SEARCH REPORT

International Application No.

PCT/JP 03/00134

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 F01D1/34 F01D1/02

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 F01D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3 737 248 A (ABRAHAM E) 5 June 1973 (1973-06-05)  column 2, line 17 -column 3, line 25; figures 1-6	1, 3, 4, 6, 8-10, 12-14, 16-20
X	PATENT ABSTRACTS OF JAPAN vol. 008, no. 230 (M-333), 23 October 1984 (1984-10-23) & JP 59 110801 A (MASATO UCHIDA), 26 June 1984 (1984-06-26) abstract	1, 3, 10, 12-14, 16-20
X	US 1 504 520 A (SEIDEL LOUIS H) 12 August 1924 (1924-08-12) the whole document	1, 3-14, 16-20

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☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

## \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
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Date of the actual completion of the international search

27 January 2004

Date of mailing of the international search report

09/02/2004

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 372 135 A (SALEM AHMED) 13 June 1990 (1990-06-13)  abstract; figure 1 ---	1,3,4,6, 10, 12-14, 16-20
X	DE 891 165 C (HORNER ALOIS) 24 September 1953 (1953-09-24)  the whole document ---	1,3-6, 8-10, 12-14, 16-20
X	DE 22 55 075 A (STANEK) 22 May 1974 (1974-05-22)  the whole document ---	1,3-6, 10, 12-14, 16-20
X	AU 506 745 B (BLOOMER J T) 24 January 1980 (1980-01-24)  page 3, line 17 -page 6, line 31; figures 1-5 ---	1,3-6, 10, 12-14, 16-20
X	US 3 690 784 A (FARROW DESMOND J) 12 September 1972 (1972-09-12)  abstract; figures 1,2 ---	1,3-6, 10, 12-14, 16-20
X	FR 1 604 701 A (AUDUBERT) 24 January 1972 (1972-01-24)  the whole document -----	1,3-6, 10, 12-14, 16-20

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Information on patent family members

International Application No

PO A 03/00134

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 3737248	A	05-06-1973	NONE	
JP 59110801	A	26-06-1984	NONE	
US 1504520	A	12-08-1924	NONE	
EP 0372135	A	13-06-1990	US 4807440 A EP 0372135 A1	28-02-1989 13-06-1990
DE 891165	C	24-09-1953	NONE	
DE 2255075	A	22-05-1974	DE 2255075 A1	22-05-1974
AU 506745	B	24-01-1980	AU 506745 B2 AU 3162677 A	24-01-1980 21-06-1979
US 3690784	A	12-09-1972	NONE	
FR 1604701	A	24-01-1972	NONE	